World Health Organization

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Joint Monitoring Programme for Water Supply, Sanitation and Hygiene



GUIDANCE NOTE TO FACILITATE COUNTRY CONSULTATION ON JMP ESTIMATES

For drinking water, sanitation and hygiene in households

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1. BACKGROUND

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) was established in 1990 and has been instrumental in developing global norms and standards to enable benchmarking of progress on drinking water, sanitation and hygiene (WASH). Following agreement of the 2030 Sustainable Development Agenda by UN Member States, the Inter-Agency & Expert Group on SDG Indicators identified WHO and UNICEF through the JMP as the custodian agencies responsible for compilation and reporting on the official global indicators for Sustainable Development Goal targets for drinking water (6.1.1), sanitation and hygiene (6.2.1a and 6.2.1b).

The JMP produces comparable estimates of progress at country, regional and global levels based on official national data. The most recent JMP report on WASH in households, "Progress on household drinking water, sanitation and hygiene 2000-2024: special focus on inequalities" " published estimates produced from 6,760 data inputs, most of which were collected directly from published reports of national authorities, including statistical offices, ministries, and regulators.

Every two years the JMP updates its global databases to incorporate the latest available national data for the global SDG indicators, and is preparing the update of the WASH in households database. The JMP is committed to consulting national authorities on the estimates generated from national data sources through a country consultation process facilitated by WHO and UNICEF country offices. The country consultation aims to engage national statistical offices and other relevant national stakeholders to review the draft estimates and provide technical feedback to the JMP team.

The purpose of the country consultation is not to compare JMP and national estimates of WASH coverage but rather to review the completeness or correctness of the datasets in the **JMP country file**. The JMP country consultation focuses on three main questions:

a. ***Is the country file missing any relevant national sources of data on drinking water, sanitation and hygiene in households that would allow for a better estimate?***
b. ***Are the data sources listed considered reliable and suitable for use as official national statistics?***
c. ***Is the JMP interpretation and classification of the data extracted from national sources accurate and appropriate?***

This guidance note is designed to support the country consultation on updated estimates of WASH in households produced by the JMP, which will be held from **30 November 2026** to **31 January 2027**. Following the country consultation the JMP will finalize the database and publish updated national, regional and global estimates for SDG targets 6.1 and 6.2 in June 2027. These estimates will also be included in the UN Secretary General's annual SDG Progress Report, due to be published in July 2027.
Results of the consultation should be shared with the WHO and UNICEF country and regional offices, and copied to info@washdata.org. The consultation deadline is 31 January 2027.

2. JMP ESTIMATES FOR BASIC AND SAFELY MANAGED SERVICES

JMP estimates are based on a simple classification of drinking water sources and sanitation facilities into improved and unimproved types. This information is widely available from national household surveys, censuses and administrative systems. For MDG reporting the JMP estimated the proportion of population using improved and unimproved types of facilities. For SDG reporting the JMP uses information on service levels to classify improved facilities into three categories: 'limited', 'basic' or 'safely managed' services as shown in Figure 1. JMP estimates of the population using 'safely managed' drinking water and sanitation services and 'basic' hygiene services are used for global tracking progress towards SDG targets 6.1 and 6.2. JMP estimates of the population using 'basic' water, sanitation and hygiene services are also used for global tracking of progress towards SDG target 1.4.

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
UNIMPROVED	Drinking water from an unprotected dug well or unprotected spring
SURFACE WATER	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal

Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite
BASIC	Use of improved facilities that are not shared with other households
LIMITED	Use of improved facilities shared between two or more households
UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste

Note: improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.

SERVICE LEVEL	DEFINITION
BASIC	Availability of a handwashing facility on premises with soap and water
LIMITED	Availability of a handwashing facility on premises without soap and water
NO FACILITY	No handwashing facility on premises

Note: Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

Figure 1. JMP service ladders for monitoring drinking water, sanitation and hygiene

2.1 DRINKING WATER

Households using improved drinking water sources which are located on premises, with water available when needed, and free from contamination[1], are classified as having 'safely managed services'. Households not meeting all of these criteria, but using an improved source with water collection times of no more than 30 minutes per round trip are classified as having 'basic services', and those using improved sources with water collection times exceeding 30 minutes are classified as 'limited services'.

2.2 SANITATION

Households using improved sanitation facilities which are not shared with other households are classified as having 'basic' services, and those using improved sanitation facilities shared with other households are classified as having 'limited' services. To be classified as 'safely managed' households must use an improved sanitation facility which is not shared and where excreta are either safely disposed in situ or removed off-site and treated. Sewage that undergoes at least secondary treatment (or primary treatment with a long ocean outfall) will be considered as 'safely managed', though non-specific information such as "wastewater treated" will not be used for the estimates. Non-sewered sanitation systems can also be safely managed, if there is information on faecal sludge management including containment, emptying, delivery to treatment and treatment with appropriate technologies.

2.3 HYGIENE

Handwashing with soap and water has been identified as the top priority for improving hygiene. The presence of a hand washing facility with soap and water available is the closest measurable proxy for handwashing in households and has been selected as the global indicator for monitoring progress on hygiene under SDG 6.2. This proxy measure is increasingly included in household surveys, and represents a more reliable indicator than self-reported handwashing behaviour. For global reporting the JMP uses national surveys to estimate the proportion of households with a handwashing facility with soap and water available at home.

[1] For global monitoring purposes, the priority water quality parameter will be the absence of faecal indicator bacteria (*E. coli* or thermotolerant coliforms). Data on arsenic and fluoride will also be used where available.

3. JMP ESTIMATION METHODS

The JMP generates rural, urban and national estimates for each country by drawing a line of best fit between all available data points. Simple linear regression using the least squares method is used to estimate the proportion of the population with each of the following between 2000 and 2026:

- Drinking water
    - Improved water within 30 minutes (basic or safely managed)
    - Improved water over 30 minutes (limited)
    - Unimproved water
    - Surface water
- Sanitation
    - Improved and not shared sanitation (basic or safely managed)
    - Improved and shared sanitation (limited)
    - Unimproved
    - Open defecation
- Hygiene
    - Handwashing facility observed with soap and water available
    - Handwashing facility without soap or water
    - No handwashing facility
    - Bathing facilities on premises
    - Bathing facilities on premises with water
- Menstrual health
    - Use of menstrual materials
        - Use of reusable materials
        - Use of single-use materials
    - Enough menstrual materials
    - Private place to change
    - Awareness of menstruation before first menstrual period
    - Ability to reduce menstruation-related pain
    - Comfort seeking help from a health care provider
    - Participation in school, work, social activities during menstruation

To calculate **safely managed drinking water** the JMP estimates the proportion of improved drinking water sources (piped and non-piped) which are:

- on premises,
- available when needed, and
- free from contamination.

These values are multiplied by the proportion of the population using improved drinking water sources, to calculate the population using improved water sources that are on premises, available when needed, and free from contamination. Finally, the JMP uses the minimum of these three values (or two values if either accessibility or availability are missing) to estimate coverage of safely managed drinking water services.

To calculate **safely managed sanitation** the JMP estimates the proportion of improved sanitation facilities not shared with other households (sewer connections, septic tanks and other improved facilities such as improved pit latrines) from which excreta are

- safely disposed in situ (contained and not emptied, or emptied and buried on site), or
- removed from the home through sewer lines and treated at a treatment plant, or
- emptied from non-sewered facilities, transported to a treatment plant and treated.

The proportion reaching treatment is adjusted based on the proportion of wastewater and faecal sludge treated.

While the data required to estimate access to basic WASH services are readily available for most countries, the JMP has not always been able to find the data required to estimate safely managed drinking water and sanitation services. The JMP will only make an estimate if data are available for at least 50% of the relevant population.

4. COUNTRY CONSULTATION

According to the instructions from the Interagency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs), international agencies responsible for producing country estimates on SDG indicators are expected to consult with countries on the interpretation and use of country data in global estimates and reports. The JMP country consultation is a process whereby WHO and UNICEF seek feedback from national authorities on the JMP country files and draft estimates of progress in drinking water, sanitation and hygiene. It is therefore important that relevant country authorities understand the essential elements of the JMP country file and estimation methods in order to effectively provide feedback through this consultation.

JMP global and regional estimates are derived by aggregating country trends so establishing comparable estimates of progress across countries is paramount. Because the JMP applies a common methodology across all countries its estimates often differ from government estimates which use different definitions and/or methods. The JMP methodology is rooted in estimates of which water and sanitation facilities are used by households, and gives preference to population-based sources of data such as censuses and household surveys, over administrative records which may be based on infrastructure coverage. However, data from infrastructure-based databases will be essential for other aspects of SDG indicators such as drinking water quality and wastewater treatment.

The purpose of the consultation is not to compare JMP and national estimates of WASH coverage but rather to review the completeness or correctness of the datasets in the JMP country file and to verify the interpretation of national data in the JMP estimates.

WHO and UNICEF country offices are well-placed to ensure coordination and effective division of labour. Country Offices are not expected to undertake complex analysis, or to review the estimation methodology, but simply to support national authorities to identify any missing data sets and to provide feedback on the interpretation and classification of existing data. Country Offices are best placed to know which sectoral ministries should be consulted (water, sanitation, health, environment) but in all cases the consultation should involve the National Statistics Office which is the national counterpart of IAEG-SDGs, the body tasked by the UN General Assembly to oversee the global monitoring, and therefore will be primarily responsible for SDG reporting at the national level[2].

[2] Please see attached list of NSO SDG focal points compiled by the IAEG-SDGs.

5. Structure of the JMP country files

The JMP country files have been updated to address the expanded scope and ambition of the SDG targets and the Excel spreadsheet has a series of tabs but for ease of reference the front page includes links to the key tabs as described below:

5.1 'Introduction' for generating files in different languages

The introduction tab provides details on the country name, the reference period for the update and the contents of the file. Users can change the language by selecting Arabic, English, French, Spanish, or Russian from the dropdown menu.

5.2 'Ladders' for the most recent estimates

This tab displays drinking water, sanitation and hygiene 'ladders' used by the JMP for global monitoring purposes. The ladders show rural, urban and national estimates for the year 2026, or for the latest year for which estimates can be made. Summary estimates are tabulated below as they will appear in the statistical tables at the back of the planned JMP 2027 report.

5.3 'Basic Charts' (Charts B)

This tab includes charts showing estimated trends in the use of 'basic' drinking water, 'basic' sanitation, 'basic' hygiene services and open defecation since the year 2000. These charts illustrate the JMP method of using a linear regression of available data points to generate estimates for any given reference year between 2000 and 2026 and highlight differences between previously published estimates of 'improved' and new estimates of 'basic' services.

5.4 'Safely managed charts' (Charts SM)

This tab summarises the data used to estimate use of 'safely managed' drinking water and 'safely managed' sanitation services. It includes charts showing estimated trends in the major types of facilities used by households i.e. piped versus non-piped improved drinking water sources, and sewer connections versus septic tanks and other types of improved sanitation facilities. It also includes charts showing estimated trends in the main elements of 'safely managed' services. The drinking water chart shows the proportion of improved drinking water sources which are located on premises, available when needed, and free from contamination. The sanitation chart shows the proportion of population using sanitation facilities from which excreta are disposed in situ, and faecal sludge and sewage which are removed and treated.

5.5 'Estimates'

This tab provides estimated values for limited and basic services, as well as for elements of safely managed services. Improved water sources are disaggregated into piped and non-piped sources, while improved sanitation facilities are disaggregated into sewer connections, septic tanks, and improved latrines. Individual elements of safely managed drinking water (on premises, available, and quality) are shown separately, along with the overall estimate of safely managed drinking water, which is the minimum of the three elements. Individual elements of safely managed sanitation (excreta disposed in situ, faecal sludge treated, sewage treated; all excluding shared sanitation) are shown, along with the overall estimate of safely managed sanitation, which is the sum of the three elements. Estimates are also available for bathing and menstrual health. Estimates are provided for rural, urban and national areas, alongside population estimates from the UN Population Division. Estimates are generated for all years possible from 2000 through 2026.

5.6 'Data Summary'

This tab provides a comprehensive list of all national data sources used in the production of JMP country estimates in chronological order. It shows which sources are used to derive each value and whether they are surveys, censuses or administrative sources. For more detailed information on how data extracted from each of these sources has been classified by JMP see 'Water data', 'Sanitation data', 'Wastewater data', 'Hygiene data' and 'Menstrual health data'.

6. Actions to take during the consultation

The country consultation should focus on the Data Summary tab which lists those sources of data on drinking water, sanitation, and hygiene which have been collected to date. The consultation should focus on three main questions:

a. ***Is the country file missing any relevant national sources of data on drinking water, sanitation and hygiene in households that would allow for a better estimate?***

If the country file is missing any relevant sources of data, the JMP team will be grateful to receive these data and include them to update the estimates. For example, if data on drinking water quality are missing from the country file but available from national partners, these could potentially be used to calculate and report on the indicator for Safely Managed Drinking Water services.

b. ***Are the data sources listed considered reliable and suitable for use as official national statistics?***

If any of the data sources listed in the Data Summary tab are not considered to be reliable and suitable for use in calculating the SDG indicators, please inform the JMP team. Data points can be excluded for global estimates if they are unsuitable, unreliable or simply incorrect.

c. ***Is the JMP interpretation and classification of the data extracted from national sources accurate and appropriate?***

Finally, if the data extracted from the listed sources (shown in detail on the 'Water Data', 'Sanitation Data', 'Wastewater Data', 'Hygiene Data', and 'Menstrual Health Data' tabs) has not been accurately extracted or interpreted, please inform the JMP team. In some cases, data extracted might have been misinterpreted or misclassified by the JMP team, and therefore will require correction.

Note that the Country Files contain formulas and links. Due to the statistical modelling approach used, we kindly ask you to **not work directly in the MS Excel worksheets** but rather provide data for consideration including its source in an additional document to the JMP team so they can insert the data and run the models accordingly.

Results of the consultation should be shared with the WHO and UNICEF country and regional offices, and copied to info@washdata.org. The consultation deadline is 31 January 2027.

7. References and documentation

JMP Website: https://www.washdata.org/
SDG Monitoring: https://washdata.org/how-we-work/sdg-monitoring

JMP Data: https://washdata.org/data
JMP Reports: https://washdata.org/reports
JMP Methods: https://washdata.org/monitoring/methods

JMP Methodology: 2017 update and SDG baselines
https://washdata.org/report/jmp-methodology-2017-update

JMP Core questions on water, sanitation and hygiene for household surveys
https://washdata.org/report/jmp-2018-core-questions-household-surveys

Metadata
https://unstats.un.org/sdgs/metadata/files/Metadata-06-01-01.pdf
https://unstats.un.org/sdgs/metadata/files/Metadata-06-02-01a.pdf
https://unstats.un.org/sdgs/metadata/files/Metadata-06-02-01b.pdf